

SAFETY DATA SHEET

ExxonMobil

PHTHALIC ANHYDRIDE

Section 1. Identification

Product name : PHTHALIC ANHYDRIDE

Product description : Anhydride

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Chemical, Feedstock

Uses advised against : This product is not recommended for any industrial, professional or consumer use other than the identified uses above.

Supplier : ExxonMobil Product Solutions Company (a division of Exxon Mobil Corporation)
SDS – LOC. 106
22777 Springwoods Village Parkway
Spring, TX 77389-1425 USA

24-Hour emergency telephone number : 1-800-424-9300 / +1 703-741-5970 / +1-703-527-3887 (CHEMTREC)

Supplier General Contact : (832) 624-8500

SDS Internet Address : www.sds.exxonmobil.com

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : COMBUSTIBLE DUSTS
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
May form combustible dust concentrations in air.

Precautionary statements

Prevention : P261 - Avoid breathing dust.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves. Wear eye or face protection.
P284 - Wear respiratory protection.

Section 2. Hazards identification

Response	: P301 + P330, P312 - IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell. P302 + P352 - IF ON SKIN: Wash with plenty of water. P304 + P312, P340 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. P305 + P310, P351, P338 - IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor. P362 + P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse.
Storage	: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
Contains	: phthalic anhydride
Hazards not otherwise classified	: None known.
Note	: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Chemical name	: phthalic anhydride

Ingredient name	% by weight	Identifiers
phthalic anhydride	100	CAS: 85-44-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
Inhalation	: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Section 4. First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 10 minutes. Get medical attention immediately. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Call a poison center or physician. Wash with plenty of soap and water. In the event of any complaints or symptoms, avoid further exposure.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical

- Hazardous combustion products** : Incomplete combustion products, Organic acid(s), Oxides of carbon, Smoke, Fume

Special protective actions for fire-fighters

- : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Assure an extended cooling down period to prevent re-ignition. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Material will sink. Seek advice of a specialist. No immediate action required. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 6. Accidental release measures

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Thermal burn hazard - contact with hot material may cause thermal burns. Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Static Accumulator** : This material is a static accumulator.
- Loading/Unloading Temperature** : 141 - 149 °C
- Transport Temperature** : 141 - 149 °C
- Transport Pressure** : 101.32502 mm Hg
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- Storage Temperature** : 141 - 149 °C
- Storage Pressure** : 760 mm Hg
- Suitable Containers/Packing** : Railcars, Tank Cars, Tank Trucks
- Suitable Materials and Coatings** : Stainless Steel, Carbon Steel, Sand Blasted, Aluminum, Type 3003

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
phthalic anhydride	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 6 mg/m³. TWA 10 hours: 1 ppm.</p> <p>CAL OSHA PEL (United States, 5/2018) TWA 8 hours: 6 mg/m³. TWA 8 hours: 1 ppm.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 2 ppm. TWA 8 hours: 12 mg/m³.</p> <p>OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 1 ppm. TWA 8 hours: 6 mg/m³.</p> <p>ACGIH TLV (United States, 1/2024) Absorbed through skin , Skin sensitizer , Inhalation sensitizer. TWA 8 hours: 0.002 mg/m³. Form: Inhalable fraction and vapor. STEL 15 minutes: 0.005 mg/m³. Form: Inhalable fraction and vapor. SL: 0.05 mg/100cm².</p> <p>ExxonMobil (COMPANY) TWA 8 hours: 0.05 mg/m³.</p>

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment) are designed to minimize the potential for dust ignition and prevent explosion propagation. For example, use explosion relief vents, an explosion suppression system or inert equipment internals. Additional examples of proper equipment include using only appropriately classified electrical equipment and powered industrial trucks.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Face shield.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 4 - 8 hours (breakthrough time): Polyethylene (HPPE laminated film), minimum 0.07 mm thickness or comparable protective barrier material
< 1 hour (breakthrough time): Nitrile, minimum 0.38 mm thickness or comparable protective barrier material
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Solid. [powder]
- Color** : Colorless
- Odor** : Sour/Acidic
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : 131.6°C (268.9°F) [Technical literature]
- Boiling point or initial boiling point and boiling range** : 284.5°C (544.1°F) [Technical literature]
- Flash point** : Closed cup: 152°C (305.6°F) [ASTM D-93]
- Evaporation rate** : Not available.
- Flammability** : Ignitable
- Lower and upper explosion limit/flammability limit** : Not applicable.
- Vapor pressure** : <0.08 mm Hg [26.6 °C] [In-house method]
- Relative vapor density** : Not applicable.
- Relative density** : 1.527 [Technical literature]
- Density** : 1.214 g/cm³ [132°C (269.6°F)] [Technical literature]
- Solubility in water** : Moderate
- Partition coefficient: n-octanol/water** : 2.07 [In-house method]
- Auto-ignition temperature** : 580°C (1076°F) [Technical literature]
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

Section 9. Physical and chemical properties and safety characteristics

Molecular weight : 148

Particle characteristics

Median particle size : Not available.

Hygroscopic : Yes

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Moisture. Excessive heat.

Incompatible materials : Strong oxidizers, water

Hazardous decomposition products : Organic acid(s)

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result	Duration
phthalic anhydride	LC50 Inhalation Dusts and mists	Rat	>2.14 mg/l	4 hours
	LD50 Dermal	Rabbit	>3160 mg/kg	-
	LD50 Oral	Rat	1530 mg/kg	-
phthalic anhydride	LD50 Oral	Rat	1530 mg/kg	-

Conclusion/Summary

- Inhalation** : Minimally Toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 403
- Dermal** : Minimally Toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 402
- Oral** : Slightly toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 401

Irritation/Corrosion

Conclusion/Summary

- Skin** : Irritating to the skin. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404
- Eyes** : Severely irritating, and may seriously damage eye tissue. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 405
- Respiratory** : May be irritating to the respiratory tract. The effects are reversible. No end point data for material.

Respiratory or skin sensitization

Conclusion/Summary

- Skin** : May cause allergic skin reaction. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 406
- Respiratory** : Data available. Based on test data for the material. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Mutagenicity

Conclusion/Summary : Not expected to be a germ cell mutagen. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 471 473 476 479

Section 11. Toxicological information

Carcinogenicity

Conclusion/Summary : Not expected to cause cancer. Data available. Based on test data for the material. Test (s) equivalent or similar to OECD Guideline 451

Reproductive toxicity

Conclusion/Summary : Not expected to be a reproductive toxicant. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 414

Specific target organ toxicity (single exposure)

Conclusion/Summary : May cause respiratory irritation. No end point data for material.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Target organs
phthalic anhydride	Not applicable.	-

Conclusion/Summary : Not expected to cause organ damage from prolonged or repeated exposure. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 451

Aspiration hazard

Conclusion/Summary : Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. No end point data for material.

Other information

Product : May cause an allergic respiratory reaction becoming evident upon re-exposure to this material, and may cause breathing difficulties.

Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

Toxicity

Product/ingredient name	Duration	Species	Result
phthalic anhydride	72 hours	Algae - <i>Alga</i>	Acute EC0 100 mg/l data for similar materials
	48 hours	daphnia - <i>Daphnia magna</i>	Acute EC50 >640 mg/l data for similar materials
	7 days	Fish - <i>Brachydanio rerio</i>	Acute LC50 560 mg/l Data for the material
	72 hours	Algae - <i>Alga</i>	Acute NOEC 100 mg/l data for similar materials

Conclusion/Summary

Acute toxicity : Not expected to be harmful to aquatic organisms.

Chronic toxicity : Not expected to demonstrate chronic toxicity to aquatic organisms.

Persistence and degradability

Product/ingredient name	Test	Result	Qualifier	Media
phthalic anhydride	Ready Biodegradability	85 % - 28 days	-	water

Biodegradability : Material -- Expected to be readily biodegradable.

Hydrolysis : Material -- Expected to degrade rapidly in water due to hydrolysis.

Photolysis : Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation : Material -- Expected to degrade at a moderate rate in air

Bioaccumulative potential

Not determined.

Mobility in soil

Mobility : Material -- Expected to partition to water. Some partitioning to sediment and wastewater solids. Minimally volatile.

Other ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Phthalic anhydride	85-44-9	Listed	U190

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN3257	UN3257	UN3257	UN3257
UN proper shipping name	Elevated temperature liquid, n.o.s. (phthalic anhydride)	ELEVATED TEMPERATURE LIQUID, N.O.S.	ELEVATED TEMPERATURE LIQUID, N.O.S.	Elevated temperature liquid, n.o.s.
Transport hazard class(es)	9	9	9	9
Label(s) / Marks				
Packing group	III	III	III	III
Environmental hazards	No.	No.	No.	No.

Additional information

DOT Classification

: **Reportable quantity** 5000 lbs / 2270 kg. The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.

Limited quantity No.

Packaging instruction Exceptions: None. Non-bulk: None. Bulk: 247.

Quantity limitation Passenger aircraft/rail: Forbidden. Cargo aircraft: Forbidden.

Special provisions IB1, T3, TP3, TP29

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9).

Explosive Limit and Limited Quantity Index 0

Passenger Carrying Road or Rail Index Forbidden

Special provisions 16

Section 14. Transport information

- IMDG** : **Emergency schedules** F-A, _S-P_
Special provisions 232, 274
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Packaging instructions: Forbidden. Cargo Aircraft Only: Forbidden. Packaging instructions: Forbidden. Limited Quantities - Passenger Aircraft: Forbidden. Packaging instructions: Forbidden.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : COMBUSTIBLE DUSTS
 ACUTE TOXICITY (oral) - Category 4
 SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 RESPIRATORY SENSITIZATION - Category 1
 SKIN SENSITIZATION - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	phthalic anhydride	85-44-9	100
Supplier notification	phthalic anhydride	85-44-9	100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: PHTHALIC ANHYDRIDE

Section 15. Regulatory information

- New York** : The following components are listed: Phthalic anhydride
- New Jersey** : The following components are listed: PHTHALIC ANHYDRIDE
- Pennsylvania** : The following components are listed: 1,3-ISOBENZOFURANDIONE
- Illinois** : None of the components are listed.

Inventory list

- Australia inventory (AIC)** : All components are listed or exempted.
- Canada inventory (DSL-NDSL)** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.
- Japan inventory (CSCL)** : All components are listed or exempted.
- Japan inventory (Industrial Safety and Health Act)** : All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC)** : All components are listed or exempted.
- Philippines inventory (PICCS)** : All components are listed or exempted.
- Korea inventory (KECI)** : All components are listed or exempted.
- Taiwan Chemical Substances Inventory (TCSI)** : All components are listed or exempted.
- United States inventory (TSCA 8b)** : All components are active or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Expert judgment Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

History

Section 16. Other information

Date of issue/Date of revision : 26 July 2024

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

✔ Indicates information that has changed from previously issued version.

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